CLAIM AMENDMENTS

1. (Presently Amended) A hierarchical optical add-drop multiplexer, OADM, apparatus comprising

a power-splitter ~~coupler~~ for receiving a multi-wavelength input optical signal and splitting it into ~~coupling~~ a first signal portion to a waveband OADM and a second signal portion to a variable-bandwidth wavelength OADM;

the waveband OADM with a coarse granularity for

receiving the first signal portion at a first input port,

selectively passing one or more wavebands of the received first signal portion, where each waveband includes a group of wavelengths,

outputting the non-passed one or more wavebands ~~wavelength bands~~ of the received first signal portion at a drop port, and

receiving a second input optical signal at an add port which is combined with passed wavebands to form a first output signal;

the variable-bandwidth wavelength OADM with a fine granularity, connected in parallel with the waveband OADM, for

receiving the second signal portion at a second input port;

providing variable bandwidth by selectively passing one or more wavelengths of a selected one of the one or more non-passed ~~blocked~~ wavebands of the waveband OADM ~~multi-wavelength optical signal~~,

outputting the non-passed one or more wavelengths at a drop port, and

receiving a third input optical signal at an add port which is combined with passed one or more wavelength channels of the multi-wavelength optical signal to form a second output signal; and

a combiner for combining the first and second output signals to form an OADM apparatus output signal.

2. (Original) The OADM apparatus of claim 1 wherein the first and second signal portions are equal.

3. (Original) The OADM apparatus of claim 1 wherein the waveband OADM is a variable-bandwidth apparatus and the one or more wavebands to be blocked by the waveband OADM is selected in response to a waveband control signal.

4. (Original) The OADM apparatus of claim 1 wherein a second waveband control signal is used to select the waveband where the wavelength OADM is to be utilized and the one or more passed wavelengths of that selected waveband are selected in response to a wavelength control signal.

5. (Original) The OADM apparatus of claim 1 wherein the waveband OADM includes a first waveband blocker, connected to receive the first equal portion signal, for selectively blocking one or more wavebands and passing non-blocked waveband through the OADM apparatus.

6. (Original) The OADM apparatus of claim 5 wherein the waveband OADM includes a second waveband blocker or a power slitter combined with band filters, connected to receive the first equal portion signal, for selectively dropping one or more wavebands.

7. (Original) The OADM, apparatus of claim 1 wherein the wavelength OADM includes a first wavelength blocker, unit connected to receive the second equal portion signal, for selectively passing one or more wavelength channels through the OADM apparatus.

8. (Original) The OADM, apparatus of claim 7 wherein the wavelength OADM includes a second wavelength blocker, or a power splitter combined with wavelength filters, unit connected to receive the second equal portion signal, for dropping the selected one or more wavelengths.

9. (Original) The OADM apparatus of claim 1 further including a second wavelength OADM, a second splitter that power splits the optical signal sent to the wavelength OADM and sends it to both the wavelength OADM and the second wavelength OADM, and a combiner that power combines the signals from both the wavelength OADM and the second wavelength OADM to form the second output signal, and wherein a third waveband control signal is used to select a second waveband where the second wavelength OADM is to be utilized and wherein one or more blocked wavelengths of that selected second waveband are selected in response to a second wavelength control signal.

10. (Original) The OADM apparatus of claim 1 further including a second wavelength OADM, wherein the coupler is a band demultiplexer that splits the input optical signal and sends it to the waveband OADM, the wavelength OADM, and the second wavelength OADM, and wherein the combiner is a band multiplexer that combines the signals from the waveband OADM, the wavelength OADM, and the second wavelength OADM to form the OADM apparatus output signal.

11. (Original) The OADM apparatus of claim 1 wherein the coupler is a band demultiplexer that splits the input optical signal and sends it to the waveband OADM and the wavelength OADM and wherein the combiner is a band multiplexer that combines the signals from the waveband OADM and the wavelength OADM to form the OADM apparatus output signal.

12. (Presently Amended) A method of operating an optical add-drop multiplexer, OADM, apparatus comprising the steps of:

receiving a multi-wavelength input optical signal and power-splitting it into ~~coupling~~ a first signal portion that is coupled to a coarse granularity waveband OADM and a second signal portion to a variable-bandwidth fine granularity wavelength OADM;

the waveband OADM performing the steps of

receiving the first signal portion,

selectively passing one or more wavebands of the received first signal portion ~~multi-wavelength optical signal~~, where each waveband includes a group of wavelengths,

outputting non-passed one or more wavebands of the received first signal portion at a drop port, and

receiving a second input optical signal at an add port which is combined with passed one or more wavebands to form a first output signal;

the variable-bandwidth wavelength OADM, connected in parallel with the waveband OADM, for

receiving the second signal portion at a second input port;

providing variable bandwidth by selectively passing one or more wavelengths of a selected one of the one or more non-passed wavebands of the waveband OADM ~~multi-wavelength optical signal~~,

outputting the non-passed one or more wavelengths at a drop port, and

receiving a third input optical signal at an add port which is combined with the passed one or more wavelength channels of the multi-wavelength optical signal to form a second output signal; and

~~a combiner for~~ combining the first and second output signals to form an OADM apparatus output signal.